Election/Restriction

1. Applicant's March 6, 2008 correspondence elects Group II, without traverse, which encompasses instant claims 17 and18. The invention contained in groups II and III, encompassing instant claims 1-16 and 19-20, are withdrawn from consideration as being drawn to non-elected subject matter see 37 CFR 1.142(b). Instant claims 17 and 18 have been amended and new claims 21-24 added. Accordingly, the subject matter now under consideration is drawn to claims 17-18 and 21-24.

Priority

2. This application claims priority of International Application PCT/JP04/09604, filed June 30, 2004, which claims priority to Foreign Patent Application JAPAN 2003-189837, filed July 1, 2003 and JAPAN 2003-420912, filed December 18, 2003.

3. The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application fails to provide adequate

support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. All claims are not adequately supported or enabled by the prior-filed applications for a method of treatment.

It is noted that Applicant is not entitled to the priority date in these application for all claims in the instant claim set because the information contained within the earlier filed applications does not support the granting of an earlier filing date. Specifically, the prior filings (JAPAN 2003-189837 and JAPAN 2003-420912) do not support Applicants instantly claimed invention because the prior filed applications are in the Japanese language and not understood by the Examiner. All claims are given a priority date of June 30, 2004.

[**Note**: For Applicant to have the possibility to perfect the priority date, as well as satisfy the requirements of the first paragraph of 35 U.S.C. 112, Applicant must provide an English translation of the priority document.]

4. It is noted that this application appears to claim subject matter disclosed in prior International Application PCT/JP04/09604, filed June 30, 2004, which claims priority to Foreign Patent Application JAPAN 2003-189837, filed July 1, 2003 and JAPAN 2003-420912, filed December 18, 2003. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or

365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed

was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Information Disclosure Statement

5. The Information Disclosure Statement (IDS) correspondences submitted by Applicant on April 25, 2006 are acknowledged. The references have been reviewed to the extent each is a proper citation on a U.S. Patent.

6. The Information Disclosure Statement filed February 17, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion

which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specifically, the foreign patent documents JP 2001-163862, JP 2001-507338, JP 2002-541095, jp 2004-2318 and JP 2004-504351 have not been provided.

7. The listing of references in the Search Report is not considered to be a proper citation complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all

"statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Title

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD OF TREATING METABOLIC BONE DISEASE WITH A TRIAZOLO PYRIDAZINE AND BISPHOSPHONATE COMPOUND.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 23 recites the limitation "the bisphosphonate". There is insufficient antecedent basis for this limitation in the claim.

Appropriate action is required.

10. The recitation "and/or" in claim 17 and 18 at line 2 is confusing as to what method is being claimed. *In re Anderegg* 51 USPQ 66.

11. Claims 17-18 and 21-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This is an Enablement rejection.

Applicant asserts in claims 17 and 18 a "method for prevention." To prevent, as defined by Merriam-Webster Dictionary is to keep from happening or existing, which implies taking advance measures against something possible or probable. Furthermore, the definition of "to prevent" and the "act of preventing" embraces the complete 100% inhibition. Thus, the burden of enablement in the assertion of this claim is much higher than would be the case of enabling the treatment of the condition and is not achieved. As for the instant application in relation to the prior art, neither the prior art or the instant application enable for the prevention of metabolic bone disease with the elected composition. That being stated, nowhere in the instant application has the efficacy of the elected composition been enabled to prevent the occurrence of metabolic bone disease. Since absolute success is not reasonably possible with most diseases/conditions, especially those having etiologies and pathophysiological manifestations as complex as metabolic bone disease, the specification, which lacks an objective showing that metabolic bone disease can actually be prevented, is viewed as lacking an adequate written description of the same.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 17-18 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al. (US Patent 7,173,033) in view of Burk (US Patent 6,174,857).

Igarashi et al. teach a method of stimulating bone formation in a mammal comprising administering an effective amount of a 3,6-disubstituted 1,2,4-triazolo[4,3-b]pyridazine compound, such as 6-(4-fluoropiperidin-1-yl)-3-(6-methoxypyridin-2-yl)-1,2,4-triazolo[4,3-b]pyridazine (reference claims 1, 5 and 7).

The compound is useful for the treatment of osteoporosis (column 1, line 25) and especially for the treatment of senile osteoporosis (column 8, lines 57-58).

Igarashi et al. does not teach the use of bisphosphonate to treat a reduction of bone mass or bone strength.

Burk teaches the current therapeutic agents of treating type II osteoporosis (senile osteoporosis) includes the antiresorptives (column 1 lines 32-47), such as bisphosphonates (column 4, lines 38-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention, that if 3,6-disubstituted 1,2,4-triazolo[4,3-b]pyridazine compound, such as 6-(4-fluoropiperidin-1-yl)-3-(6-methoxypyridin-2-yl)-1,2,4-triazolo[4,3-b]pyridazine are effective at stimulating bone formation in the treatment of a metabolic bone disease like senile osteoporosis as is taught by Igarashi et al. and bishosphonates are effective at reducing bone loss/strength in the treatment of a metabolic bone disease like senile osteoporosis as taught by Burk, then a combination of the two compounds would be similarly effective at treating a metabolic bone disease like senile osteoporosis. “It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-

dried detergents were held to be *prima facie* obvious.). Because it would be well within the purview of the skilled artisan to administer these compounds either at the same time as a composition or separately as two dosage forms, instant claims 17-18, 21-22 and 24 are rendered obvious. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention, that the bishophonates in the Burk reference would include alendronate, risedronate, pamidronate, incadronate, minodronate, ibandronate, and zoledronate as well as other well known bisphosphonates such as neridronate, olpadronate, clodronate and tiludronate, thus rendering instant claim 23 obvious.

Therefore, the teachings of Igarashi et al., in view of Burk, would render the instant invention obvious.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In*

re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

U.S. Patent 7,173,033

13. Claims 17-18 and 21-24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5 and 7 of U.S. Patent No. 7,173,033 (Igarashi et al.), in view of Burk. Although the conflicting claims are not identical, they are not patentably distinct from each other because Igarashi et al. teach a method of stimulating bone formation in a mammal comprising administering an effective amount of a 3,6-disubstituted 1,2,4-triazolo[4,3-b]pyridazine compound, such as 6-(4-fluoropiperidin-1-yl)-3-(6-methoxypyridin-2-yl)-1,2,4-triazolo[4,3-b]pyridazine (reference claims 1, 5 and 7).

Igarashi et al. does not teach the use of bisphosphonate to treat a reduction of bone mass or bone strength or that Applicant's elected compound is effective to treat type II osteoporosis.

Although it is not explicitly mentioned within the referenced claims in Igarashi et al., in light of the reference specification, the compound is useful for the treatment of osteoporosis (column 1, line 25) and especially for the treatment of senile osteoporosis (column 8, lines 57-58).

Burk teaches the current therapeutic agents of treating type II osteoporosis (senile osteoporosis) includes the antiresorptives (column 1 lines 32-47), such as bisphosphonates (column 4, lines 38-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention, that if 3,6-disubstituted 1,2,4-triazolo[4,3-b]pyridazine compound, such as 6-(4-fluoropiperidin-1-yl)-3-(6-methoxypyridin-2-yl)-1,2,4-triazolo[4,3-b]pyridazine are effective at stimulating bone formation in the treatment of a metabolic bone disease like senile osteoporosis as is taught by Igarashi et al. and bishosphonates are effective at reducing bone loss/strength in the treatment of a metabolic bone disease like senile osteoporosis as taught by Burk, then a combination of the two compounds would be similarly effective at treating a metabolic bone disease like senile osteoporosis. "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having

been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be *prima facie* obvious.). Because it would be well within the purview of the skilled artisan to administer these compounds either at the same time as a composition or separately as two dosage forms, instant claims 17-18, 21-22 and 24 are rendered obvious. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention, that the bishophonates in the Burk reference would include alendronate, risedronate, pamidronate, incadronate, minodronate, ibandronate, and zoledronate as well as other well known bisphosphonates such as neridronate, olpadronate, clodronate and tiludronate, thus rendering instant claim 23 obvious.

Therefore, the teachings of Igarashi et al., in view of Burk, would render the instant invention obvious.

No claims allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Kudla whose telephone number is (571) 270-3288. The examiner can normally be reached on 9am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding

is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph S. Kudla/
Examiner, Art Unit 1611
May 5, 2008

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615